



**COASTAL PROTECTION ENGINEERING OF NORTH CAROLINA, INC**

4038 MASONBORO LOOP ROAD

WILMINGTON, NC 28409

910-399-1905

January 4, 2021

Cliff Ogburn

Town Manager

Town of Southern Shores

5375 N. Virginia Dare Trail

Southern Shores, NC 27949

**Re: Invoice for November 2020 and Project Update**

Dear Mr. Ogburn:

This letter serves as an update to you and your staff on our progress with regards to task orders on which Coastal Protection Engineering of North Carolina, Inc. (CPE) is currently providing services to the Town of Southern Shores. Along with this update letter, please find attached the following Invoices:

**Southern Shores 2020 Annual Monitoring and Initial Permitting Coordination**

- **Invoice 625 – December 16, 2020**

**Southern Shores 2022 Permitting and Design**

- **Invoice 626 – December 16, 2020**

**Southern Shores 2020 Annual Monitoring and Initial Permitting Coordination:**

This work is associated with the agreement executed on May 7, 2020 between CPE and the Town of Southern Shores. Invoice #625 reflects services completed through November 30, 2020. Task 1 services are associated with data acquisition for the 2020 annual monitoring surveys. As previously reported, the data acquisition report was completed in August. The report describes data acquisition methods and includes beach profile cross sections, plan view survey charts, survey control information and survey field notes. A digital copy of the report was provided via email on November 23, 2020. Final Hard Copies of the report will be provided as an appendix to the 2020 monitoring report.

Throughout early November, CPE staff continued working on the assessment and finalizing the draft monitoring report in which updated shoreline and volumetric changes are provided. A draft version of the report was provided to you on November 23. At present we are waiting for



comments on the draft to be provided, at which time those comments will be incorporated into the final report and hard copies will be provided.

As previously reported, Task 3 services are 100% complete.

#### Design and Environmental Permitting Services, 2022 Beach Nourishment Project:

This work is associated with the agreement executed on July 13, 2020 between CPE and the Town of Southern Shores. Invoice #626 reflects services completed through November 30, 2020. Task 1 services are associated with the development of environmental documents. CPE staff continued the development of environmental documents through the month of November. These documents are being developed through cooperation with the Towns of Duck, Southern Shores, Kitty Hawk and Kill Devil Hills. In December, staff also began working on the CAMA Major Permit Application that will be submitted to DCM.

Regarding Task 2, Engineering and Design, progress continued throughout November and December on the numerical model that will be used in combination with the other Towns. As previously reported, the regional wave model has been setup and calibrated and modelers are finalizing calibration of the sediment transport and morphology model. Engineering staff continue to develop recommendations for beach fill configuration, including whether to include a dune in the design template, berm height elevation, and advanced fill density. These aspects of the project are being incorporated into a working draft of the engineering report associated with Task 2, which will provide engineering justification for the project and will support our permit application.

Task 3 reflects an increase from 13% complete to 40% complete. This effort is mostly reflective of the reconnaissance offshore survey, which was billed to CPE by APTIM in the month of November. As previously reported, between October 6 and October 11, the APTIM crew collected approximately 112 line miles of geophysical data and 14 vibracores. Upon inspection of the vibracores at the dock, and conducting sieve analysis on representative samples, a recommendation was made by CPE to the Towns of Duck, Southern Shores, Kitty Hawk, and Kill Devil Hills to terminate the sand search and forego the design level geophysical and geotechnical surveys. This was based on the likelihood that any borrow area that could be designed within the investigation area, would be sub-optimal for beach nourishment of the Town's beaches. We are currently working with APTIM to de-scope Task 3; however, preliminary discussions suggest the cost to the client will be approximately 50% of the contracted amount for Task 3. At present, we are finalizing the borrow area compatibility report, which includes updated composite



information for Borrow Area A based on post-construction volumes remaining in the Borrow Area following the 2017 construction project. Likewise, the report will include updated sediment sampling results associated with the amended state sediment criteria rules, and documentation of the offshore reconnaissance investigation conducted in October 2020.

Invoice #626 reflects no increase in the percent complete for Tasks 4 and 5 during the month of November.

Please let me know if you have questions or comments on the invoice or project status.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ken Willson', is written over a light blue horizontal line.

Ken Willson

Senior Program Manager

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